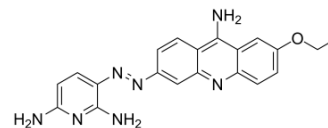


MYCMI-6

Cat. No.:	HY-124675		
CAS No.:	681282-09-7		
Molecular Formula:	C ₂₀ H ₁₉ N ₇ O		
Molecular Weight:	373.41		
Target:	c-Myc; Apoptosis		
Pathway:	Apoptosis		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 2 mg/mL (5.36 mM; ultrasonic and adjust pH to 2 with HCl)

Concentration	Mass		
	1 mg	5 mg	10 mg
1 mM	2.6780 mL	13.3901 mL	26.7802 mL
5 mM	0.5356 mL	2.6780 mL	5.3560 mL
10 mM	---	---	---

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

MYCMI-6 (NSC354961) is a potent and selective endogenous MYC:MAX protein interactions inhibitor. MYCMI-6 blocks MYC-driven transcription and binds selectively to the MYC bHLHZip domain with a K_d of 1.6 μ M. MYCMI-6 inhibits tumor cell growth in a MYC-dependent manner ($IC_{50} < 0.5 \mu$ M). MYCMI-6 is not cytotoxic to normal human cells. MYCMI-6 induces apoptosis^[1].

In Vitro

MYCMI-6 (NSC354961) (6.25 μ M; 48 hours) selectively suppresses MYC-driven tumor cell growth with high efficacy^[1]. MYCMI-6 significantly inhibits growth of Burkitt's lymphoma cells (Mutu, Daudi and ST486) - another classical example of a MYC-driven tumor, having translocations of MYC to one of the immunoglobulin loci - in a dose-dependent manner with an average GI_{50} of 0.5 μ M. Treatment of MCF7 cells with the MYCMI-6 for 24 hours significantly decreased MYC:MAX isPLA signals to 7%. Titration showed an IC_{50} for inhibition of MYC:MAX of less than 1.5 μ M for MYCMI-6 by isPLA. MYCMI-6 inhibits the MYC:MAX heterodimer formation with an IC_{50} of 3.8 μ M. MYCMI-6 efficiently inhibits anchorage-independent growth of MYCN-amplified neuroblastoma cells with GI_{50} values of $< 0.4 \mu$ M^[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Viability Assay^[1]

Cell Line:	MYCN-amplified neuroblastoma cells (IMR-32, Kelly and SK-N-DZ), MYCN-non-amplified neuroblastoma cells (SK-N-F1, SK-N-AS and SK-N-RA)
Concentration:	6.25 μ M
Incubation Time:	48 hours
Result:	Reduced growth of the MYCN-amplified cell lines significantly stronger than the MYCN-non-amplified cell lines.

In Vivo	MYCMI-6 (20 mg/kg; i.p.; daily for 1-2 weeks) induces massive apoptosis and reduces tumor cell proliferation, tumor microvasculature density and MYC:MAX interaction in a MYC-dependent xenograft tumor model ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
	Animal Model:	6-8 weeks old athymic nude mice (bearing MYCN-amplified SK-N-DZ neuroblastoma cells) [1]
	Dosage:	20 mg/kg body weight
	Administration:	i.p.; daily for 1-2 weeks
	Result:	A dramatic increase in the extension of apoptotic areas in the tumors and a significant increase in non-proliferative areas as determined by Ki67 staining in tumors.

REFERENCES

[1]. Castell A, et al. A selective high affinity MYC-binding compound inhibits MYC:MAX interaction and MYC-dependent tumor cell proliferation. Sci Rep. 2018 Jul 3;8(1):10064.

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA